

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ALABAMA  
NORTHEASTERN DIVISION**

AVOCENT HUNTSVILLE CORP.,  
an Alabama corporation,  
Plaintiff,  
v.  
CLEARCUBE TECHNOLOGY, INC.,  
a Texas corporation,  
Defendant.

Civil Action No. 5:03-CV-02875-CLS

**AVOCENT HUNTSVILLE'S OPPOSITION TO CLEARCUBE'S MOTION FOR  
PARTIAL SUMMARY JUDGMENT OF NON-INFRINGEMENT OF CLAIMS 1 AND 6  
OF THE '919 PATENT (THE "ADAPTER" MOTION)**

**AVOCENT HUNTSVILLE CORP.**  
by its Attorneys

J. Jeffery Rich  
SIROTE & PERMUTT, P.C.  
305 Church Street, Suite 800  
P.O. Box 18248  
Huntsville, Alabama 35804  
Tel: (256) 536-1711  
Fax: (256) 518-3681

James D. Berquist  
J. Scott Davidson  
Donald L. Jackson  
Peter W. Gowdey  
DAVIDSON BERQUIST JACKSON &  
GOWDEY, LLP  
4300 Wilson Blvd., Suite 700  
Arlington, Virginia 22203  
Tel: (703) 894-6400  
Fax: (703) 894-6430

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**Avocent Huntsville's Response to ClearCube's Statement of Material Facts**

1. Admitted that Avocent accuses ClearCube of infringing claims 1 and 6 of U.S. Patent No. 6,184,919 ("the '919 patent").
2. Denied. ClearCube has never stated that it does not infringe claims 1 and 6 of the '919 patent "because its products do not have an 'adapter.'" ClearCube has certainly never stated that it does not infringe those claims based on the Court's construction of the term "adapter." In his September 20, 2004 Rebuttal Expert Report, ClearCube's expert, Dr. Vaughn stated that, in his opinion, ClearCube's products lack the "adapter" recited in claims 1 and 6 of the '919 patent. Avocent also notes that ClearCube failed to identify any evidence supporting this "fact" as required by the Court's "Initial Order Governing All Further Proceedings." (*See* Docket Identifier ("D.I.") 14, Appendix II, p. iii). This "fact" is denied on this further ground. (Exh. 5).
3. Admitted that claim 1 of the '919 patent requires an adapter "configured to provide a ground reference potential for said transmitter at said adapter, whereby need for a reference ground conductor between said transmitter and said adapter is eliminated."
4. Admitted.
5. Admitted.
6. Admitted, but not material to ClearCube's motion as explained in the present opposition.
7. Denied. First, this is not a statement of fact. It is a legal conclusion or contention. Second, ClearCube has not explained what it means by a "ground" and a "separate ground." Third, the claims recite a "ground reference *potential*" – not just a "ground." Fourth, ClearCube has not explained whether the "separate ground" is a ground reference potential

provided by the adapter from the signals received from the transmitter. Avocent also notes that ClearCube failed to identify any evidence supporting this “fact” as required by the Court’s “Initial Order Governing All Further Proceedings.” (*See* D.I. 14, Appendix II, p. iii). This “fact” is denied on this further ground. (Exh. 1; and D.I. 134).

8. Denied and not material to ClearCube’s motion, as will be explained in the present opposition. Avocent also notes that ClearCube failed to identify any evidence supporting this “fact” as required by the Court’s “Initial Order Governing All Further Proceedings.” (*See* D.I. 14, Appendix II, p. iii). This “fact” is denied on this further ground. (Exhs. 8, 9).

9. Denied and not material to ClearCube’s motion, as will be explained in the present opposition. Avocent also notes that ClearCube failed to identify any evidence supporting this “fact” as required by the Court’s “Initial Order Governing All Further Proceedings.” (*See* D.I. 14, Appendix II, p. iii). This “fact” is denied on this further ground. (D.I. 134; Exhs. 1, 2, 4, 7).

10. Denied and not material to ClearCube’s motion, as will be explained in the present opposition. The Court’s *Markman* Order does not use the term “recover” and there is no need to further construe the Court’s construction. Avocent also notes that ClearCube failed to identify any evidence supporting this “fact” as required by the Court’s “Initial Order Governing All Further Proceedings.” (*See* D.I. 14, Appendix II, p. iii). This “fact” is denied on this further ground. (D.I. 134; and Exh. 1).

## I. SYNOPSIS

Plaintiff Avocent Huntsville Corp. (“Avocent Huntsville”) opposes Defendant ClearCube Technology, Inc.’s (“ClearCube’s”) Motion for Partial Summary Judgment of Non-Infringement of Claims 1 and 6 of the ‘919 Patent (*i.e.*, the “Adapter” motion). (*See* Docket Identifier (“D.I.”) 169).

The crux of ClearCube’s “Adapter” motion is a new construction of the term “adapter” that *was raised* by ClearCube during the *Markman* claim construction process, but *was not* adopted by the Court in its *Markman* claim construction order. Even though the Court did not adopt these aspects of ClearCube’s proposed construction, ClearCube continues to argue that the term “adapter” requires that: (1) the exact same potential of the transmitter ground appear at the receiver; and (2) the twisted pair conductors must serve as a return current path for signals between the receiver and the transmitter.<sup>1</sup> ClearCube tries to obscure its “revised version” of the Court’s claim construction because, recently, its preferred construction of the term “amplifier” was soundly rejected by the Court. As with the term “amplifier,” the Court should not entertain any effort by ClearCube to import additional requirements into the claims by further construing the Court’s construction of the term “adapter.” ClearCube’s motion should be denied on this basis alone.

ClearCube’s receiver not only has the claimed “adapter,” it has the preferred embodiment of the “adapter.” At the *Markman* hearing, Dr. Vaughn explained how the adapter depicted in Figure 11 of the ‘919 patent was constructed and operated. Dr. Vaughn explained that the adapter provides a ground reference potential at the adapter based on signals received from the

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<sup>1</sup> The “twisted pair” aspect of ClearCube’s claim construction of the “adapter” was also articulated by Dr. Vaughn at his May 1, 2006 deposition on his Supplemental Expert Report. (*See* Avocent’s Motion to Strike Dr. Vaughn’s Supplemental Report (D.I. 173), pp. 4-5).

transmitter. The adapter provided the ground reference potential by taking the approximate mid-point between the two balanced signals. ClearCube's receiver contains this exact circuitry. In light of this virtually conclusive testimony from ClearCube's own expert, ClearCube's modified claim construction of the term "adapter" is designed to import limitations into the claims to give ClearCube new arguments about why its receiver does not have the claimed "adapter." Those new arguments do not exist under the Court's actual *Markman* claim construction ruling.

Instead of admitting that its receiver has the "adapter" *as construed by the Court*, ClearCube engages in personal attacks that improperly (and incorrectly) attempt to paint Mr. McAlexander as someone who cannot be trusted. Unfortunately, blame-shifting has become another of ClearCube's *modus operandi* in this case. This strategy is most clearly illustrated in ClearCube's motion for summary judgment on inequitable conduct. But try as it might, ClearCube cannot escape the reality that its receiver has the same adapter that is disclosed in the '919 patent as one of the preferred embodiments. At the *Markman* hearing, Dr. Vaughn testified that this is the adapter recited in claim 1 of the '919 patent.

Moreover, Mr. McAlexander has been completely consistent throughout his reports and testimony. When Mr. McAlexander wrote his original August 2, 2004 report on infringement, ClearCube had never asserted that its products did not have the claimed adapter, nor that the term "adapter" was at issue in this case. That issue first arose in Dr. Vaughn's September 20, 2004 rebuttal report on infringement. But even at that point, Dr. Vaughn's report only contained a "place-holder" argument that did not provide details about why he believed that there is no "adapter" in the accused products. The first time ClearCube fully disclosed its "adapter" arguments was at the *Markman* hearing. Over Avocent's objections to the tardiness of the arguments, the Court generously allowed ClearCube to go forward with the "adapter" issue at the

Markman stage. Dr. Vaughn's *Markman* testimony about the "adapter" exactly coincided with the circuits in the accused products.

After the Court's *Markman* order, Mr. McAlexander's April 10, 2006 second supplemental report again confirmed that ClearCube's receiver has the "adapter" as construed by the Court. This conclusion should not have been surprising given Dr. Vaughn's *Markman* testimony. Thus, there has been no change of positions by Mr. McAlexander. It is ClearCube that has continually shifted the target by advocating ever-evolving constructions of the term "adapter" even after the Court has ruled on this issue.

Although irrelevant to the present motion, ClearCube is wrong about the effect of the "common-mode filters" in its product. First, the filters are located in the transmitter – not the receiver. So it makes no sense to argue that something in the transmitter can preclude the use of an "adapter" in the receiver. The claim imparts requirements on the "adapter" in the receiver. Second, the manufacturer's data sheet proves that the filters do not "block" or prevent any common-mode current from passing through them. At a minimum, this creates a genuine issue of material fact precluding summary judgment. ClearCube and its expert are flat out wrong that the filters block current, as they assert.

## **II. ARGUMENT**

### **A. ClearCube Bases Its Entire Motion on a Construction of "Adapter" that Was Not Adopted by the Court**

This Court *Markman* Order construed the phrase "for said transmitter" to mean "from the signals received from the transmitter." (D.I. 134, p. 2). The Court did not construe any language as requiring that the ground potential provided by the adapter be exactly the same as the ground potential of the transmitter. The Court did not construe any language as requiring the twisted

pair conductors to serve as a return current path from the receiver to the transmitter. Yet, ClearCube's non-infringement motion and Dr. Vaughn's recent supplemental report are entirely based on a construction of "adapter" that includes each of these two additional requirements.

This is not the first time the Court has seen ClearCube's two additional "adapter" requirements. In its *Markman* brief, ClearCube argued that the ground reference potential provided by the adapter must be the same ground potential as that of the transmitter.

Further, the adapter is "configured to provide a ground reference potential for said transmitter at the adapter." In order to meet that limitation, the transmitter must send ground signal information to the adapter from which the ground reference potential of the transmitter can be determined. Otherwise, the adapter at the receiver end has no way of knowing the ground reference potential of the transmitter and therefore cannot "provide a ground reference potential for said transmitter at said adapter."

(D.I. 84, p. 32 (emphasis added)). Also as part of ClearCube's construction of "adapter," ClearCube argued that the twisted pair conductors must serve as a return current path from the receiver to the transmitter.

As these ['919 patent] descriptions show, no direct ground conductor is needed between the transmitter and the receiver because the system provides a path for the ground signal to travel from the transmitter to the receiver and back to the transmitter (i.e., the "ground loop").

(D.I. 84, p. 33 (emphasis added)). These are the two requirements of the "adapter" that now serve as the entire basis of ClearCube's current non-infringement motion. Importantly, the Court did not adopt either of these aspects of ClearCube's "adapter" construction. The Court construed the phrase "for the transmitter" to mean "from the signals received from the transmitter." (D.I. 134, p. 2).

Moreover, the Court explained that the "adapter" provides the ground reference potential by adding the two balanced signals together to find the zero-volt reference point of those signals.

*The ground reference point is determined by identifying the center (0 volt) point between the positive and negative sides of the inverse signals.*

(D.I. 133, p. 45 (emphasis in original)). As support, the Court quoted portions of the '919 patent including the following:

*Thus, the center point (0 VDC) of the differential signal is referenced to the video return in the monitor, thus eliminating the need for a separate ground connection between the transmitter and the receiver and the monitor.*

(D.I. 133, p. 45 (emphasis in original)). Thus, the “adapter” provides the “ground reference potential” solely “from the signals received from the transmitter.” (D.I. 134, p. 2). There are no additional requirements that: (1) the adapter provide a ground reference potential that is exactly the same as that of the transmitter; or (2) the twisted pair conductors serve as a return current path from the receiver to the transmitter.<sup>2</sup>

ClearCube’s failure to persuade the Court to adopt its proposed construction of “adapter” has not stopped ClearCube from perpetuating that construction in its “adapter” summary judgment motion. For example, on page 13 of its “adapter” summary judgment brief, ClearCube resurrects its assertion that the adapter has to have the transmitter’s ground reference potential.

*This Court’s adapter interpretation requir[es] the ground reference potential of the transmitter . . . .*

(D.I. 169, p. 13 (emphasis added)). Later, ClearCube again makes the argument that the adapter’s ground reference potential has to be the same as the transmitter’s ground reference potential.

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<sup>2</sup> ClearCube’s “return current path” argument also makes no sense because the “twisted pair conductors” are entirely separate from the “adapter.” How can a construction of “adapter” confer any additional requirements on the “twisted pair conductors” or, for that matter, the “transmitter”? ClearCube’s “adapter” arguments end up importing limitations into these other claimed elements as well.

During examination by Avocent, Dr. Vaughn testified that the ClearCube system sends all video signals in a balanced format *and therefore does not need to recover the ground reference potential of the transmitter at the adaptor [sic: adapter]*.

(D.I. 169, p. 17 (emphasis added)). Contrary to the *Markman* order, ClearCube is again arguing that the adapter must provide a ground reference potential that is the same as the transmitter's ground reference potential. This is not required by the *Markman* order.

ClearCube's motion is also clearly based on the erroneous assumption that "adapter" requires the twisted pair conductors to serve as a return current path from the receiver to the transmitter. For example, on page 22 of its "Adapter" brief, ClearCube argues in favor of noninfringement by stating:

ClearCube *blocks the ground reference current flow* using the common-mode filter described by Dr. Vaughn rather than live with the consequences of a ground loop.

(D.I. 169, p. 22 (emphasis added)). ClearCube repeated:

In view of the arguments presented by Avocent in the course of prosecution, *Avocent is estopped from now suggesting that the blocking techniques used by ClearCube that block the ground reference flow* as was done in Chou, *now satisfies the limitation of claim 1 requiring a ground reference potential for said transmitter.*

(D.I. 169, p. 22 (emphasis added)). ClearCube also argued that the common-mode filters *located in the transmitter* block the ground reference current path from the adapter in the receiver to the transmitter.

As pointed out by Dr. Vaughn, the "lack of a ground conductor does not imply the presence of a ground reference." This is because ClearCube's circuit design (e.g. *the use of "common-mode filters" used in the transmitter*) prevents any of the twisted pairs from being used as a ground reference.

(D.I. 169, pp. 14-15 (emphasis added)).

In sum, ClearCube's motion is not based on the Court's construction of "adapter." That is, ClearCube does not argue that its receiver lacks an adapter that provides a ground reference potential "from signals received from the transmitter" at the adapter. Instead, ClearCube's motion is based on a reading of "adapter" that incorporates additional, fictional requirements into the claim – namely, that: (1) the adapter must provide a ground reference potential that is exactly the same potential as that of the transmitter; and (2) the twisted pair conductors must serve as a return current path from the receiver to the transmitter.

ClearCube's motion should be denied because it uses the wrong interpretation of "adapter" and, by doing so, sets the infringement bar too high. To the contrary (and as will be shown below), ClearCube has the exact same "adapter" circuit shown as the preferred embodiment in the '919 patent.

**B. ClearCube Also Construes the "Adapter" Claim Language to Improperly Import a Requirement that the Adapter Make Particular Uses of the "Ground Reference Potential"**

ClearCube argues over and over that it does not need an adapter that provides a ground reference potential" because its system sends all signals as balanced signals. (*E.g.*, D.I. 169, p. 15). But the "adapter" element of claim 1 does not require the adapter (or the receiver) to make any particular use of the "ground reference potential." (Exh. 1, col. 18:32-41).<sup>3</sup>

One aspect of the "adapter" claim language that is repeatedly ignored by ClearCube is that the adapter is only required to "provide a ground reference potential." Neither the claim nor the Court's construction specifies how the adapter (or the receiver) uses the ground reference potential once it has been "provided." In fact, the claim reads that the adapter is "configured to

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<sup>3</sup> The exhibits to this opposition are included as exhibits to the Declaration of Donald L. Jackson, which is attached hereto as Attachment A.

provide a ground reference potential.” The word “configured” means that the following language is a structural – not functional – limitation. In other words, the adapter must be structured (i.e., “configured”) to provide the ground reference potential as opposed to a hypothetical claim in which the adapter is “providing a ground reference potential.” The latter would be a functional limitation. But that is not the language used in claim 1.

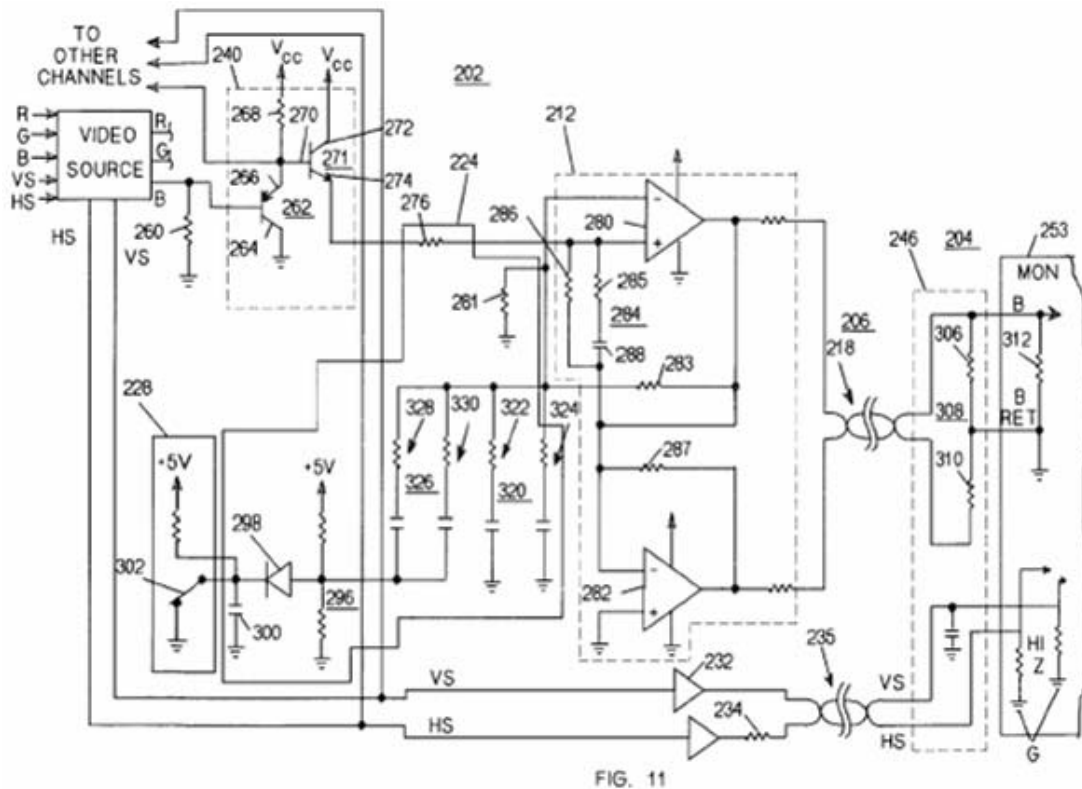
Why is this important? Because one aspect of ClearCube’s current motion is directed to an alleged use of the ground reference potential. ClearCube argues that the twisted pair conductors must actually serve as a return current path. This is a functional – not structural – requirement that is supposedly found in claim 1. But the “adapter” paragraph of claim 1 merely requires the adapter to be “configured to provide a ground reference potential.” The language does not specify how the adapter (or the receiver of which the adapter is a part) uses the ground reference potential (*i.e.*, whether it be used as a “return current path” or otherwise).

Claim 1 merely requires the adapter to be “configured to provide a ground reference potential.” The claim requirements go no further. And the Court did not construe the “adapter” to require particular uses of the ground reference potential once it has been provided by the adapter. ClearCube’s efforts to impart additional “use” requirements into claim 1 should be rejected.

**C. Dr. Vaughn’s Description of the Patented “Adapter” Exactly Describes the Circuitry in the ClearCube Receiver**

The reason ClearCube tries so desperately to construe the “adapter” differently from the Court’s construction is because ClearCube’s receiver unit, the C-Port, has the exact same circuitry that is used in the ‘919 patent for providing the ground reference potential at the adapter.

At the *Markman* hearing, Dr. Vaughn explained how the preferred embodiment of the “adapter” was configured to provide a ground reference potential at the adapter. (Exh. 2, pp. 65-71). Dr. Vaughn used Figure 11 from the ‘919 patent to illustrate his discussion. That figure is reproduced below.



Dr. Vaughn explained that twisted pair 218 carries a balanced signal. That is, if one wire carries a one-volt signal, the bottom wire carries a minus-one-volt signal. (Exh. 2, p. 69). By “adding” those two signals, the adapter 246 generates the “same zero that’s at the transmitter. The zero volts reference.” (Exh. 2, p. 69).

Dr. Vaughn went on to explain the role that resistors 306, 310, and 312 play in the adapter’s ability to “provide” the zero-volt ground reference potential. Dr. Vaughn explained that, by taking the “equivalent” resistance across resistors 306 and 310, one can determine if the “node” (*i.e.*, the physical mid-point) between resistors 306 and 310 is electrically at

approximately zero volts. (Exh. 2, pp. 70-71). Dr. Vaughn did the math on the stand and confirmed that the equivalent resistance across resistors 306 and 310 is nearly identical. (Exh. 2, p. 70). That means that, if the signals on the twisted pair are balanced, the node between resistors 306 and 310 will be at about zero volts. Dr. Vaughn explained that this is how the adapter 246 was configured to “provide the ground reference potential.” (Exh. 2, pp. 70-71).

Dr. Vaughn’s explanation of the patented “adapter” reads directly on circuitry in ClearCube’s C-Port receiver. Plaintiff’s Exhibit 39 shows the circuit diagrams of the C-Ports at issue in this case. (Exh. 3). The page numbered CC009225 shows the connector on the far left side of the page (the square labeled RJ-45) that connects to the CAT5 twisted pair cable. (Exh. 3, CC009225). The RED+ and RED- signals (*i.e.*, the positive and negative red signals) exit the connector on pins 3 and 6 and follow the wires up to the top-left corner of the page. (Exh. 3, CC009225). The RED+ and RED- signal lines are terminated across resistors R16 and R21, exactly like the configuration of resistors 306 and 310 in Figure 11 of the ‘919 patent. (Exh. 3, CC009225). Mr. McAlexander has calculated the equivalent resistance across each of ClearCube’s R16 and R21 resistors to be about 50 ohms. (Exh. 4, pp. 7-8). The node located between resistors R16 and R21 is connected to ground. This ground is the same ground that is used by the remainder of the C-Port circuitry. (Exh. 3, CC009225).

This part of the C-Port circuitry is the same as the adapter circuitry in Figure 11 of the ‘919 patent. In Figure 11 and in the C-Port, the balanced signals are terminated across two resistors. The equivalent resistance across each of the two resistors is about 50 ohms. The node between the two terminating resistors is connected to the ground point used by the remainder of the receiver circuitry. There is no meaningful difference between the relevant portions of Figure

11 and the C-Port. This is why ClearCube is so intent on reading additional limitations into the “adapter” claim language.

Thus, ClearCube’s own expert has proven that the ClearCube C-Port has an adapter that is “configured to provide a ground reference potential for said transmitter [*i.e.*, “from signals received from the transmitter”] at said adapter.” Moreover, both ClearCube and Avocent agree that ClearCube’s system operates “whereby need for a ground reference conductor between said transmitter and said adapter is eliminated.” In the ClearCube system, not only is the “need” eliminated, but there is no ground reference conductor between the transmitter and the adapter.

#### **D. Mr. McAlexander Has Not Changed Positions**

ClearCube spends the first six pages of its argument trying desperately to persuade the Court that Mr. McAlexander has changed positions. (ClearCube “Adapter” Memo. (D.I. 169), pp. 8-14). But the facts do not support ClearCube. Mr. McAlexander has been consistent throughout his reports and testimony. The problem is ClearCube’s – not Mr. McAlexander’s. Every time ClearCube comes up with a new claim construction or non-infringement argument, Mr. McAlexander has responded to those arguments in more and more detail.

As background, when Mr. McAlexander wrote his original, August 2, 2004 expert report on infringement, ClearCube had not even taken the broad position that its products lacked the “adapter.” At that point, ClearCube’s only non-infringement argument for claims 1 and 6 of the ‘919 patent was that its system did not have a transmitter that included “frequency sensitive compensating circuitry.” (Exh. 5, pp. 9-12). These court-ordered supplemental interrogatory responses made no mention of the “adapter.” (Exh. 5, pp. 9-12)].<sup>4</sup>

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<sup>4</sup> Dr. Vaughn’s September 20, 2004 rebuttal expert report on infringement was the first time anyone asserted that the ClearCube system lacked the “adapter” recited in claims 1 and 6.

Mr. McAlexander reasonably assumed that, since ClearCube had not raised the “adapter” as a noninfringement argument, ClearCube did not contest that its receivers had the claimed “adapter.” But, out of an abundance of caution, Mr. McAlexander included complete claim charts in his report that showed how every element of the asserted claims was found in the accused system. The report stated that there is an adapter for each of the twisted pair of conductors (Exh. 7, p. A-a9); each adapter is coupled to the twisted pair of conductors (Exh. 7, p. A-a10, A-a11); each adapter receives the balanced video signals and converts those signals to a single-ended signal (Exh. 7, p. A-a12, A-a13); and that each adapter is configured to provide a ground reference potential for the transmitter, whereby need for an additional reference ground conductor is eliminated (Exh. 7, p. A-a13). This was more than enough analysis since ClearCube had not argued that its products lacked the “adapter.”

Mr. McAlexander correctly stated that there was no ground conductor between the transmitter and the receiver/adapter. (Exh. 7, p. A-a13). Thus, consistent with the claim language, not only does the C-port eliminate the *need* for a ground reference conductor, the ClearCube system does not include a ground reference conductor between the transmitter and receiver. To quote Mr. McAlexander, “[t]he CAT 5 cable coupling the transmitter and the adapter via RJ45 connectors *provides no reference ground between the transmitter and the adapter.*” (Exh. 7, p. A-a13). Mr. McAlexander was absolutely correct. The cable provides no separate ground between the transmitter and adapter.

As the Court observed in its *Markman* Memorandum Opinion, the ground is extracted from the balanced signals – *not* from a separate ground in the cable. (D.I. 133, p. 46). The pertinent part of the *Markman* Opinion reads as follows:

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(Exh. 6, p. 4). But even at this point, Dr. Vaughn’s arguments about the “adapter” were little more than a place-holder. (Exh. 6, p. 4).

That is, because the adapter receives inverse video signals from an amplifier located on a transmitter, and because the adapter is able to determine the “ground” information from these signals alone, there is no need to send ground information from the transmitter to the adapter *by way of an additional conductor.*

(D.I. 133, p. 46 (italics in original, underlining added)). This is exactly what Mr. McAlexander said in his original report. There is no separate ground conductor between the transmitter and adapter. The “ground” information is determined solely from the balanced signals – not from an additional conductor.

After ClearCube sprung the “adapter” argument, the Court generously considered the issue and construed the phrase “for said transmitter” to mean “from the signals received from the transmitter.” With this construction, Mr. McAlexander again analyzed ClearCube’s C-Port. In his April 10, 2006 second supplemental report, Mr. McAlexander concluded that the C-port has the claimed adapter using the Court’s construction of “for said transmitter.” (Exh. 4, pp. 7-8)]. Mr. McAlexander walked through his infringement analysis in great detail, paralleling Dr. Vaughn’s analysis of the Figure 11 adapter at the *Markman* hearing. (Exh. 4, pp. 7-8). Focusing on the language construed by the Court, Mr. McAlexander again concluded that the C-Port has an adapter that is configured to provide a ground reference potential at the adapter.

There is no inconsistency between the April 10, 2006 report and the original August 2, 2004 report. In the August 2nd report, Mr. McAlexander clearly stated that there was not a separate ground conductor between the transmitter and adapter. The only way that the April 10, 2006 report could be “completely contrary” (to use ClearCube’s language) would be if Mr. McAlexander now said that there was a separate ground conductor between the transmitter and adapter. But his April 10th report obviously says no such thing.

Moreover, when Mr. McAlexander wrote his original report, ClearCube did not argue that the “adapter” was missing from its system. Thus, Mr. McAlexander could not have addressed any specific non-infringement arguments – no such arguments existed. By the time of the Court’s *Markman* ruling, ClearCube’s “adapter” noninfringement arguments were clearer. Consequently, Mr. McAlexander was able to delve into more detail, while remaining focused on the disputed claim language. The difference between the two reports is in the level of detail contained in those reports, not their substantive content. The August 2, 2004 report was more general, while the April 10, 2006 was more detailed and focused. There are no inconsistencies in any of Mr. McAlexander’s reports or testimony.

ClearCube’s assertions that Mr. McAlexander has changed positions are without merit. These arguments have more to do with ClearCube’s desire to bias the Court against Mr. McAlexander than they have to do with ClearCube’s motion.

**E. Although Irrelevant, the “Common-Mode Filters” in the ClearCube Transmitter Do Not Prevent the Receiver from Having the “Adapter”**

As explained above, ClearCube’s arguments about the effect of the common-mode filters are *irrelevant* to the infringement questions in this case because there is no requirement in claim 1 of the ‘919 patent that the twisted pair conductors serve as a return current path from the receiver to the transmitter. But Avocent fully expects this red-herring argument to be a centerpiece of ClearCube’s arguments to the Court and jury at trial. Thus, the following discussion demonstrates that, instead of blocking the ground reference current path, the common-mode filters nearly present a short-circuit to that current (*i.e.*, they do not block current at all).

ClearCube repeatedly mischaracterizes the effect of the common-mode filters present in the ClearCube transmitter. ClearCube states that those filters “block” any potential ground

reference current path that may otherwise exist from the receiver back to the transmitter.

ClearCube made this argument at least twice:

ClearCube blocks the ground reference current flow using the common-mode filter described by Dr. Vaughn rather than live with the consequences of a ground loop.

(D.I. 169, p. 22 (emphasis added)).

As pointed out by Dr. Vaughn, the “lack of a ground conductor does not imply the presence of a ground reference.” This is because ClearCube’s circuit design (e.g. the use of “common-mode filters” used in the transmitter) prevents any of the twisted pairs from being used as a ground reference.

(D.I. 169, pp. 14-15 (emphasis added)).

But ClearCube is wrong. The common-mode filters do *not* block the ground reference current flow. The opposite is true. The common-mode filters are nearly transparent to the ground reference current flow. In other words, the common-mode filters are nearly a short circuit to the ground reference current.

As the Court recognized in its *Markman* Claim Construction Memorandum Opinion, the patent explains that the adapter provides a ground reference potential by taking the center point (*i.e.*, 0 volt DC) between the two balanced signals.

*The ground reference point is determined by identifying the center (0 volt) point between the positive and negative sides of the inverse signals.*

(D.I. 133, p. 45 (emphasis in original)). As support, the Court quoted portions of the ‘919 patent including the following:

Thus, the center point (0 VDC) of the differential signal is referenced to the video return in the monitor, thus eliminating the need for a separate ground connection between the transmitter and the receiver and the monitor.

(D.I. 133, p. 45 (emphasis added)). The *key fact* is that the ground reference potential is a DC signal (not an AC signal). The filter does present a variable amount of impedance to AC signals, but not to DC signals.

The data sheet for the common-mode filter used in ClearCube's transmitter proves that those filters have virtually no resistance to DC signals. Under the "Electrical Characteristics" heading of page CC083367, the data sheet states that the filters have DC resistance of 0.5 ohms maximum. (Exh. 8, CC083367; Exh. 9, ¶¶ 5-8). In electrical terms, that is virtually zero resistance. Compare this minimal resistance to the impedance for AC signals. At 100 Mega Hertz (*i.e.*, 100-million-Hertz), the impedance is 1000 ohms – *i.e.*, two-thousand times more resistance than the DC resistance. (Exh. 9, ¶¶ 8-9). To put this in further perspective, the resistance of the typical CAT5 cable at issue in this case is about 100 ohms. (Exh. 2, p. 71). Even the resistance of the CAT 5 cable presents 200 times more resistance than the resistance of the common-mode filters. (Exh. 9, ¶ 9).

ClearCube and Dr. Vaughn are demonstrably wrong when they assert that the common-mode filters block the DC ground reference current path. The opposite is true. The common-mode filters appear to be nearly short circuits to the DC ground reference current traveling from the receiver to the transmitter along the twisted pair conductors.

### III. CONCLUSION

ClearCube's "Adapter" noninfringement motion is based on a claim construction for "adapter" that was not adopted by the Court. ClearCube argues that: (1) the "adapter" must provide a ground reference potential that is exactly the same as that of the transmitter; and (2) the twisted pair conductors serve as a return current path from the receiver to the transmitter. ClearCube argued this in its *Markman* briefing, but the Court did not accept that construction.

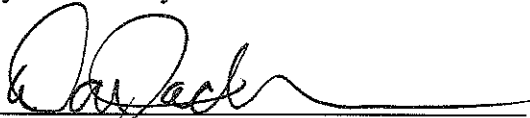
Nevertheless, ClearCube continues to argue these additional claim limitations in support of the present motion. This is contrary to the Court's *Markman* order, and an improper attempt to revive arguments rejected by the Court. ClearCube's summary judgment motion should be denied on this basis alone.

The reason ClearCube is desperate to inject additional requirements into the claims is because the ClearCube C-Port has the same circuitry as that disclosed in the '919 patent as one of the preferred embodiments. Dr. Vaughn's *Markman* testimony about how the patented adapter is constructed exactly describes the C-Port circuitry that Mr. McAlexander identified as part of the "adapter." Thus, Dr. Vaughn's testimony and analysis, together with Mr. McAlexander's testimony and analysis, raise at least a question of fact regarding whether ClearCube's C-Port has the claimed "adapter." In fact, there is no real dispute between the experts that, using the Court's claim construction, the C-Port provides a ground reference potential at the "adapter." Thus, summary judgment should be denied for this additional reason.

Dated: May 25, 2006

**AVOCENT HUNTSVILLE CORP.**

by its Attorneys



J. Jeffery Rich  
SIROTE & PERMUTT, P.C.  
305 Church Street, Suite 800  
P.O. Box 18248  
Huntsville, Alabama 35804  
Tel: (256) 536-1711  
Fax: (256) 518-3681

James D. Berquist  
J. Scott Davidson  
Donald L. Jackson  
Peter W. Gowdey  
DAVIDSON BERQUIST JACKSON & GOWDEY, LLP  
4300 Wilson Blvd., Suite 700  
Arlington, Virginia 22203

Tel: (703) 894-6400  
Fax: (703) 894-6430

**CERTIFICATE OF SERVICE**


The undersigned hereby certifies that, on May 25, 2006, the foregoing "Avocent Huntsville's Opposition to ClearCube's Motion for Partial Summary Judgment of Non-Infringement of Claims 1 and 6 of the '919 Patent (The "Adapter" Motion)" was electronically filed with the Clerk of the Court using the CM/ECF system which will send notification of such filing to the following:

Joseph M. Cloud  
Joseph M. Cloud, P.C.  
521 Madison St., Suite 102  
Huntsville, Alabama 35801

Russell T. Wong  
Wong, Cabello, Lutsch, Rutherford & Brucculeri, LLP  
20333 SH 249, Suite 600  
Houston, Texas 77070

Harlan I. Prater, IV  
Lightfoot, Franklin & White, LLC  
The Clark Building  
400 20th Street North  
Birmingham, Alabama 35203

J. David Cabello  
Wong, Cabello, Lutsch, Rutherford & Brucculeri, LLP  
20333 SH 249, Suite 600  
Houston, Texas 77070

  
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Donald L. Jackson

# **Attachment A**

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ALABAMA  
NORTHEASTERN DIVISION**

AVOCENT HUNTSVILLE CORP.,  
an Alabama corporation,  
Plaintiff,

v.

CLEARCUBE TECHNOLOGY, INC.,  
a Texas corporation,  
Defendant.

Civil Action No. 5:03-CV-02875-CLS

**DECLARATION OF DONALD L. JACKSON IN SUPPORT OF  
AVOCENT HUNTSVILLE'S OPPOSITION TO CLEARCUBE'S  
"ADAPTER" NONINFRINGEMENT MOTION**

I, Donald L. Jackson, hereby declare as follows:

1. I am a partner with Davidson Berquist Jackson & Gowdey, LLP and counsel in this action to Plaintiff Avocent Huntsville Corp.
2. Attached hereto as Exhibit 1 is a true and correct copy of U.S. Patent No. 6,184,919 ("the '919 patent").
3. Attached hereto as Exhibit 2 is a true and correct copy of excerpts from the February 23, 2006 *Markman* claim construction hearing transcripts.
4. Attached hereto as Exhibit 3 is a true and correct copy of Plaintiff's Deposition Exhibit 39 showing the circuit diagrams for the ClearCube C-Port product.
5. Attached hereto as Exhibit 4 is a true and correct copy of excerpts from the April 10, 2006 Second Supplemental Expert Report of Mr. McAlexander.

6. Attached hereto as Exhibit 5 is a true and correct copy of excerpts from ClearCube's Supplemental Responses to Avocent Huntsville's Interrogatories dated July 23, 2004.

7. Attached hereto as Exhibit 6 is a true and correct copy of excerpts from the September 20, 2004 Rebuttal Expert Report of Dr. Vaughn on infringement issues.


8. Attached hereto as Exhibit 7 is a true and correct copy of excerpts from the August 2, 2004 Expert Report of Mr. McAlexander on infringement issues.

9. Attached hereto as Exhibit 8 is a true and correct copy of Bates Number Pages CC083349-083379 produced by ClearCube contemporaneously with Dr. Vaughn's April 24, 2006 Supplemental Expert Report. According to Dr. Vaughn's Supplemental Report, these pages are or include the data sheet for the ACM3225-102 common-mode filter (or "choke") that Dr. Vaughn states is used in the ClearCube Backpack product (*i.e.*, the "transmitter").

10. Attached hereto as Exhibit 9 is a true and correct copy of the Declaration of Joseph C. McAlexander, III in Support of Avocent Huntsville's Opposition to ClearCube's "Adapter" Summary Judgment Motion.

11. I declare under penalty of perjury that the foregoing is true and correct.

Dated: May 25, 2006

  
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Donald L. Jackson